

ABSTRACT OF THE DISCLOSURE

[0042] The invention includes a method of cleaning a processing chamber by introducing supercritical fluid into the processing chamber. A residue over an internal chamber surface is contacted with the supercritical fluid to remove the residue from the surface. The invention also includes a method of removing deposited material from internal surfaces of a processing system. A cleaning agent comprising carbon dioxide is provided in liquid phase or supercritical phase into at least a portion of the processing system. A material deposited on an internal surface of the processing system is contacted with the cleaning agent to solubilize at least a portion of the deposited material and the solubilized fraction is removed from the system. The invention further includes a processing system which includes a supercritical fluid source in selective fluid communication with a processing chamber configured to selectively flow supercritical fluid into the chamber during a chamber cleaning process.